

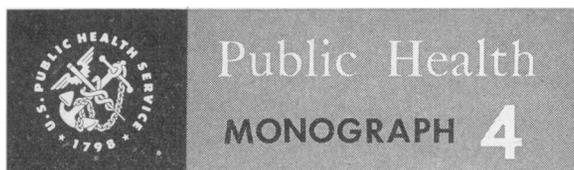
# Two Surveys of Disabling Illness

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New estimates of the prevalence of disabling illness among persons aged 14 to 64 years in the United States have recently been compiled from the results of two sample surveys, identical in plan, undertaken in February 1949 and September 1950. The findings of the first of these surveys have been available for some time (1, 2), but users of the data were cautioned to take into account the fact that the amount of illness in the country is usually at or near the top of the seasonal cycle in February. The statistics presented for February 1949, therefore, overestimated the amount of disabling illness that one would find in the United States on an average day. On the basis of that survey it was estimated that 4.6 million persons between the ages of 14 and 64 years, inclusive, were unable to carry on their usual activities because of some illness or other medical condition.

As had been expected, the second survey revealed a lower prevalence (table 1). In September 1950, the estimate indicated that slightly more than 3.6 million persons aged 14 to 64 were disabled, using the same criteria of inability to carry on usual activities. Most of the difference between the two figures was in the cases of illness of short duration, that is, the cases for which disability had lasted a month or less. Many of these illnesses were probably the minor respiratory infections which are responsible for the greater part of the seasonal differences.

On the other hand, the number of persons who, at the time of the survey, had been disabled for more than 3 months was not greatly different in September 1950 from the corresponding number in February 1949. The estimate from the earlier survey was 2.3 million and from the later survey, 2.2 million. These



This article is a summary of the principal findings presented in Public Health Monograph No. 4, published concurrently with this issue of *Public Health Reports*. The author is a biostatistician in the Division of Public Health Methods, Public Health Service.

Readers wishing the data in full may purchase copies of the monograph from the Superintendent of Documents. A limited number of free copies are available to official agencies and others directly concerned on specific request to the Public Inquiries Branch, Public Health Service. Copies will be found also in the libraries of professional schools and the major universities, and in selected public libraries.

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Woolsey, Theodore D.: Estimates of disabling illness prevalence in the United States. Based on the Current Population Survey of February 1949 and September 1950. Public Health Monograph No. 4 (Public Health Service Publication No. 181). U. S. Government Printing Office, Washington, 1952. Price 15 cents.

must have been chiefly chronic disabling cases, and the stability of the number is in accordance with expectation.

A comparison of the numbers of persons dis-

abled for more than 3 months (lower half of table 1) and the numbers of all persons found to be disabled (upper half) indicates that the cases of longer duration form a proportion of the total that (a) increases steadily with age; (b) is higher in September than in February; and (c) is higher for males than for females.

The surveys did not cover the population of resident institutions, such as hospitals for mental disease, tuberculosis sanatoriums, homes for the aged, and orphanages. The number of disabled persons 14 to 64 years of age in these institutions is estimated at roughly 750,000. Most of these have undoubtedly been disabled for more than 3 months, and, hence, would have appeared in the lower part of table 1, as well as in the upper part, if they had been included in the survey.

In addition to supplying national estimates of the numbers of disabled persons, the two

surveys also afford an opportunity to make comparisons of the prevalence of disabling illness in the main age and sex groups of the population aged 14 to 64 years and in urban, rural, and employment status categories. Tables 2 and 3 shown here are abstracted from Public Health Monograph No. 4 in which the findings from the September 1950 survey are brought together with those from the survey of February 1949, and the averages of the prevalence rates from the two surveys combined are presented in greater detail than is possible here.

The data in table 2 reveal three points which are worthy of particular attention. First, there is the high prevalence of disabling illness among males at ages 45 years and over. A higher rate for males than for females has been observed in previous surveys but not for males as young as 45 to 54 years. Second, there is a rather striking excess of disabling illness among

**Table 1. Estimated number<sup>1</sup> of persons with a disabling illness or condition in the civilian non-institutional population, 14 to 64 years of age, by age and sex, United States, February 1949 and September 1950**

Sex and date	Numbers of persons (in thousands)						
	14-64 years	14-19 years	20-24 years	25-34 years	35-44 years	45-54 years	55-64 years
All disabled persons							
Both sexes:							
February 1949.....	4, 569	387	364	650	797	1, 044	1, 330
September 1950.....	3, 605	225	259	534	618	804	1, 167
Male:							
February 1949.....	2, 341	196	150	274	366	566	791
September 1950.....	2, 005	124	118	243	306	426	789
Female:							
February 1949.....	2, 228	191	214	376	431	478	539
September 1950.....	1, 600	101	141	291	312	378	378
Persons disabled over 3 months at the time of the survey							
Both sexes:							
February 1949.....	2, 300	120	121	260	343	562	893
September 1950.....	2, 206	75	103	266	338	517	909
Male:							
February 1949.....	1, 412	71	73	160	190	338	580
September 1950.....	1, 378	46	61	158	205	293	616
Female:							
February 1949.....	888	49	48	100	153	224	313
September 1950.....	828	29	42	108	133	224	293

<sup>1</sup>All figures in this and other tables are estimates from a sample survey and are, therefore, subject to sampling variability which may be relatively large for the smaller figures and the small differences between figures. Each cell of this table was rounded separately; hence, the detail figures do not always add to give the exact total shown.

**Table 2. Estimated percentage<sup>1</sup> of persons with a disabling illness or condition in the civilian noninstitutional population, 14 to 64 years of age; by age, sex, race, and marital status for females, United States, February 1949 and September 1950 combined**

Sex, race, and marital status for females	Average percentage of persons with a disabling illness or condition, by age						
	14-64 years	14-19 years	20-24 years	25-34 years	35-44 years	45-54 years	55-64 years
Both sexes.....	4.19	2.46	2.78	2.58	3.45	5.40	9.38
Male.....	4.59	2.62	2.50	2.37	3.37	5.89	11.96
Female.....	3.82	2.31	3.02	2.78	3.52	4.93	6.84
Married.....	3.45	2.46	3.18	2.33	2.92	4.34	6.16
Not married.....	4.70	2.28	2.70	5.35	6.85	6.97	8.18
Both sexes:							
White.....	4.03	2.39	2.66	2.46	3.29	5.17	8.97
Nonwhite.....	5.77	3.01	3.80	3.93	4.91	7.87	15.00
Male:							
White.....	4.51	2.55	2.52	2.34	3.30	5.78	11.59
Nonwhite.....	5.42	3.33	2.28	2.71	4.06	6.92	16.88
Female:							
White.....	3.58	2.25	2.78	2.56	3.28	4.56	6.41
Nonwhite.....	6.07	2.70	4.94	4.87	5.63	8.77	12.96

<sup>1</sup> See footnote 1, table 1.

unmarried women in all age groups from 25 years on, compared with rates for married women in the same age groups. This, too, is a relationship that has been observed before, although no completely convincing explanation has been given for it. Finally, a consistent and not unexpected disadvantage of the nonwhite population with respect to disabling illness shows up clearly in the prevalence rates.

The rates in table 2 are based on cases of disabling illness of all prior durations. This means the rates include cases in which the dis-

ability had lasted as short a time as one day and other cases in which the person had been continuously unable to work for as long as 10 years, or had even been completely disabled since birth. The rates in table 3, on the other hand, are averages for the two surveys of the percentages of persons aged 14 to 64 who had been disabled for more than 3 months.

For these chronic disabling cases it is apparent that the rates for males are higher than those for females at all ages included in the survey. The ratio of male to female prevalence ranges

**Table 3. Estimated percentage<sup>1</sup> of persons in the civilian noninstitutional population disabled for over 3 months at the time of the survey, by age, sex, and race, United States, February 1949 and September 1950 combined**

Sex and race	14-64 years	14-19 years	20-24 years	25-34 years	35-44 years	45-54 years	55-64 years
Both sexes.....	2.31	0.79	1.01	1.16	1.67	3.16	6.78
Male.....	2.95	.97	1.26	1.46	1.99	3.75	9.06
Female.....	1.71	.62	.78	.88	1.37	2.59	4.53
Both sexes:							
White.....	2.23	.79	1.01	1.09	1.56	3.04	6.43
Nonwhite.....	3.15	.82	1.01	1.83	2.69	4.37	11.37
Male:							
White.....	2.91	.98	1.31	1.42	1.94	3.71	8.74
Nonwhite.....	3.40	.87	.69	1.96	2.46	4.15	13.23
Female:							
White.....	1.59	.61	.72	.79	1.19	2.39	4.18
Nonwhite.....	2.94	.78	1.25	1.73	2.89	4.58	9.36

<sup>1</sup> See footnote 1, table 1.

between 1.45 and 2.00 in the six age groups shown. In these same six age groups the ratio of male to female mortality from all causes of death ranges from 1.47 to 1.74. In general, there is a noticeable similarity of pattern between the distribution of the disabling illness of longer duration by age, sex, and race and that of mortality in the same groups.

Public Health Monograph No. 4 provides rates for the duration categories in greater detail and also gives average rates of prevalence by employment status and urban, rural nonfarm, and rural farm residence. Tables of sampling errors for use in making rough tests of significance are also presented.

Field work and statistical processing for the two surveys were done by the Bureau of the

Census at the request of the Public Health Service, the Social Security Administration, and the Office of Vocational Rehabilitation, Federal Security Agency. A description of the survey, the definitions used, the sampling errors, and other essential features of the data are contained in the references listed here and in the monograph.

#### REFERENCES

- (1) Woolsey, Theodore D.: Estimates of disabling illness prevalence in the United States. Based on the February 1949 Current Population Survey. *Pub. Health Rep.* 65: 163-184 (1950). Reprint No. 2995.
- (2) Moore, Marjorie E., and Sanders, Barkev S.: Extent of total disability in the United States. *Social Security Bull.* 13: 7-14 (1950).

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